



Munich Personal RePEc Archive

Self-Employment and the Economic Cycle in Spain

Jose Manuel Lasierra

Universidad de Zaragoza

October 2018

Online at <https://mpa.ub.uni-muenchen.de/89593/>

MPRA Paper No. 89593, posted 25 October 2018 14:34 UTC

Self-Employment and the Economic Cycle in Spain

In periods of economic crisis, self-employment emerges as a potential alternative to unemployment. Literature on the subject identified two distinct basic theories according to which predisposition towards self-employment occurs as an opportunity (pull) or a need (push), closely linked to the business cycle. Here, due to our concern that self-employment might be incentivized in periods of crisis leading to both financial and personal failures, we attempted to verify the validity of both of these theories. To do so, we used a series of personal and job-related variables signifying certain characteristics of persons who want to be self-employed. Our results point towards greater substantiation for the *pull theories* and refute certain beliefs held by academicians and managers. Furthermore, there are two variables with high, significant coefficients that serve as a synopsis to describe opportunity: workload and money. We link both of these with working hours and net income.

Key words:

Business cycle, Entrepreneurship, Labour Policy, Self-employment, Unemployment, Gender

1. Introduction.

Starting up a business is very hard, particularly so during an economic crisis. Caution should be exercised when encouraging people who are anguish-stricken about unemployment or youth with little to nil job experience to become self-employed (Medina, 2012).

The economic crisis and high unemployment generates a great deal of malaise and this has been addressed through measures to incentivize employment. Currently, stimulating self-employment is not only considered as fostering economic progress, but also as a tool to tackle massive unemployment (Medrano, 2012; Rubio, 2012; Levesque and Minitti, 2006; GEM, 2014; Acs, et al. 2012; Audretsch and Thurik, 1997; Carree et al. 2002; Wennekers and Thurik, 1999; Fritsch et al. (2015)). In many countries, an important number of public policy initiatives, national and regional policies, has been introduced to enhance directly entrepreneurship activity and indirectly economic growth (Ribeiro & Galindo, 2012). However, beyond good intentions, policies should take due

account of the factors that foster positive results and those that neutralize and/or prevent them.

In this regard, we should consider the theories that interpret increases in self-employment as either as the result of a series of opportunities or of the person's need to make a living. Both theories contextualise the individual's attitude towards being self-employed within expanding and contracting economic cycles.

While much literature has been generated linking economic cycles and self-employment, controversy over the subject remains and particularly requires further empirical verifications.

While this research does not aim to carry out a thorough examination of entrepreneurs and entrepreneurship, it is important to bear in mind that there is indeed a certain degree of entrepreneurship involved in every self-employed person. The *a priori* relationship with the business cycle requires an analysis of its influence on individuals' disposition vis-à-vis any given type of work and on the policies adopted to stimulate entrepreneurship. In any event, we should first stake out the variants that can stem from self-employment and make a distinction between self-employed persons who become employers and another widespread figures, i.e. the own-account worker, Congregado et al. (2010). Secondly, in the context of open economies, a distinction must be made between the economic cycle nationally and in the aggregate, Roman et al. (2013). Finally, in this article we have included two different years in the recent economic cycle: 2006 and 2010. While these two years do not reflect a full cycle, as seen in Annex 1, they do reflect two significant periods with clearly distinct differences that are significantly consistent with the hypothesis we aim to verify.

The information that we have managed does not enable us to analyse just how that desire to be self-employed materializes in a business project, although it did enable us to observe predispositions towards one type of employment or another. We believe the information also excludes those "false self-employed" persons (Behling & Harvery 2015) who have this status only because certain companies require them to do so and to whom commercial law applies.

The purpose of this research is to verify the validity of these theories in Spain by selecting two clear-cut phases of the economic cycle and relating them to certain

personal and labour aspects that impact an individual's aim to be a salaried worker or desire to be self-employed.¹

While policies to foster self-employment and entrepreneurship stand as permanent fixtures in general proposals for economic growth, in all countries, these policies become particularly visible in times of crisis. Yet propaganda and good intentions may be greater than the measures' actual effectiveness in fostering self-employment. It is therefore worth wondering and analysing whether these policies are the most appropriate to generate employment. We have our doubts and that more than justifies this research, which handled a significant amount of data on individuals and explanatory variables. If the business projects are successful, policies to stimulate self-employment during the crisis could be both a remedy for unemployment and a lever for future economic growth. However, if the businesses fail, they could also trigger both a worsening of the individual's personal situation and a waste of public spending. The "quality" of entrepreneurs is bound to be different during a bullish phase than during a recession, and economic policies should take this into account. Evidence clearly shows that previous unemployment does not provide a favorable basis for high-quality entrepreneurship and leads to higher exit rates and worse economic outcomes (Carrasco 1999; Andersson & Wadensjö, 2007).

However, this research does not go as far as verifying the degree of success of the initiatives generated in bullish and bearish phases of the economy, but we can venture to provide certain results on which to base ourselves in order to appraise public self-employment policies.

This presentation of the research follows the following outline. After having presented the topic, the scope of the research and its motivations, in the second section we will go over the literature and in the third present the hypothesis behind our work and our methodology. In the fourth section, we will present the results and in the fifth we will interpret them. Finally, in the sixth section, we provide a summary and conclusions and recommendations as well as the limitations of the research and its potential expansion.

¹ See García and Molina (1998 and 2002), García et al. (2010), Molina and Montuenga (2009), y Giménez and Molina (2014) about the labor market in Spain; and, specifically, Campaña et al. (2016), Gimenez et al. (2012), Molina et al. (2015, 2016), and Barrado and Molina (2015), Campaña et al. (2017), Molina et al. (2016, 2017, 2018) about self-employment or entrepreneurship in Spain and around the world, respectively.

2. Review of the literature and hypotheses

One's disposition to be self-employed can be interpreted as a first step towards entrepreneurship. We take this to hold true at least in the individuals that manifest their willingness in this regard when the economy is in an expansive phase, which is when the most and best jobs are available and when the opportunity cost of ceasing to be a salaried employee will be high.

During the recessive phase, self-employment is perceived as a resort to satisfy a need. There is a wealth of literature on entrepreneurship and self-employment that deals specifically with the technical, economic, financial and psychological factors spurring a person on to become self-employed, the survival rate of entrepreneurial initiatives, patterns of the business cycle and firm survival, the dynamic nature of causality between entrepreneurial activity and the economic cycle, and the traits of entrepreneurs, for instance their ages, marital status, and even certain information regarding the economic cycle (unemployment rates, for instance, Congregado et al. 2008, 2010; Román, et al. 2013).

Yet despite the wealth of literature on the subject, thus far we have found no research that, based on push and pull theories, relates one's disposition to be self-employed to working conditions. In Corral and Villarejo (2009) we found a brief but only merely descriptive mention made of this. An approach to what we set out to do can be gleaned from Roman et al. (2013). A distinction is made between two categories of variables. One is institutional and has to do with labour and social relations in the workplace and encompasses variables relating to labour and social relations. Some of these variables are personal and may include self-employment. The other category includes macro variables relating to labour framework, the cycle and public policies in that field that support self-employment and/or start-ups. The labour variables mentioned by Roman are not specified and are left to a generic interpretation along the lines that the Spanish labour market is said to be very rigid. We take an approach using personal characteristics and a set of labour aspects that lead individuals to show a preference for being salaried or self-employed.

Our belief is that just as push theories hold that unemployment incentivizes self-employment, poor or good working conditions can also impact a person's disposition to be self-employed, either positively or negatively, particularly when the economy is at its peak of an expansive cycle and during a recession, which is currently the case. We believe that during a recessive phase, the drawing room of unemployment, working conditions and salaries usually worsen and this can lead a person to reconsider his/her employment status. Also, good working conditions and high salaries during expansive phases would tend to be a disincentive for self-employment, although greater business opportunities would foster it (according to pull theories) at the same time.

Salaried and self-employed workers reflect characteristics and attitudes towards work and even towards life that vary greatly from one individual to the next. Undoubtedly, an individual's economic and social context will have a significant bearing, but we believe certain other personal and psychological factors do even more so. Entrepreneurship requires certain qualities and characteristics in an individual that distinguish passive persons from active ones. There are certain psychological theories that classify people according to their predisposition to create and to carry out initiatives. Plog (1974, 1991, in Rubio, 2012) presents three types of individuals: 1. Psychocentric, individuals who shun risk and prefer a peaceful lifestyle and leisure; 2. Allocentric, individuals who are bolder and more self-assured and stimulated by challenges, and 3. Midcentric, individuals who are a mixture of both. We believe that these three categories reflect real attitudes of individuals towards self-employment and entrepreneurship. However, because of both our aims and the available information, our research is not geared towards an in-depth analysis of individuals' psychological traits, although this classification of attitudes may be present in some of the business theories that we used as references. For instance, many entrepreneurs tend to have overoptimistic assumptions of their future business prospects (Astebro 2003).

Among different business theories, the theory of institutionalism (North 1984, 1993), provides a proper theoretical framework for analysing business creation. It enables us to analyse different types of human interaction within a general framework of "rules of play" that pose conditioning factors to economic growth and job creation. Through incentives and opportunities, governments generate factors on which various agents operating in society are contingent. While we believe that the government's role in

North's view is important for entrepreneurship, we believe that the ideas put forward by the Austrian School on entrepreneurship have more of a bearing.

Schumpeter's corporative entrepreneurship does not seem pertinent to the aim of our research, i.e. the self-employed. We believe that Kirzner (1997), Hayek (1948) and Menger's (1870) ideas about individual agents seeking undiscovered opportunities (Kirzner), collecting disperse information (Hayek) and transforming it into a business project (Menger) is better suited to this research. This is to say, the agent is active and not reactive in the face of occurrences. Contrarily, he or she is constantly seeking and is not a mere agent reacting to circumstance. While we are aware of the fact that it is not the same to be self-employed out of need as it is to be an entrepreneur, we do believe there is an overlap between Knight's notion of risk in uncertain environments where one hopes to make a profit, although it is merely equivalent to a salary. Given that the question this research poses is whether or not a person would prefer to be salaried or self-employed instead of examining whether or not the person in actual fact established a company with zero or several employees, we equate self-employment to entrepreneurship.

In our opinion, there is continuity between more general business theory and theories involving self-employment. We refer to the pull theory of opportunity prevailing during expansive phases of the economy and the push theory leading a person to react to a need due to a loss of income or employment in the recessive phase of the economic cycle. Normally, progressive factors include favorable economic conditions, which raise profit expectations, and technological opportunities, Ejermo & Xiao (2014).

Regarding these theories, the 2014 Global Entrepreneurship Monitor report indicated that levels of entrepreneurship in 2014 were lower than in 2008. The report estimated that Total Entrepreneurial Activity (TEA) that year was 29.8% out of need while opportunity based activity stood at 66.9% and a small percentage was accounted for by other factors. The link between self-employment and unemployment has been an issue that has generated interest without having given way to conclusive results. Evans and Leighton (1990) found a positive link. Thurik (2014) and Thurik et al. (2008) observed an important relationship between the two but felt that opportunity was more important and observed very similar results in their research on 23 OECD countries over a long period. Klapper et al. (2015) and Rampini (2004) find evidence of a pro-cyclical relationship between the business cycle and entrepreneurship. In their research on Portugal, Baptista et al. (2006) indicated that unemployment increased self-employment

yet the same did not hold the other way around. In their research on Spain, Cuadrado et al (2005) considered growth in self-employment to be related to developments on the job market in general, as did Bögenhold & Staber (1991).

In our research, unlike opinions held by Castejon (2003), Evans and Leighton (1990) and Bögenhold & Staber (1991), the initial working hypothesis is that pull theories more significantly explain one's willingness to be self-employed than push theories do. As a result:

H₁: There will be more self-employment in expansive versus recessive phases of the business cycle.

Insofar as the rest of the hypothesis, we lifted certain variables from the questionnaire that explain aspects fostering or influencing a bent towards seeking opportunities and the preference to be self-employed as opposed to salaried. Age, training, job position and salary, certain working conditions and industrial and social relations at work are among the variables.

The second hypothesis refers to gender. There is a wealth of literature pointing to women's lesser degree of entrepreneurship due, among other factors, to women's greater involvement in domestic work, an issue which we are unable to analyse here (Edwards & Field-Hendrey, 2002). Alonso & Galve (2008) and Fuentes et al (2010) indicate that women are increasingly joining the ranks of entrepreneurs but we believe they continue to lag behind men. Alvarez et al. (2012) indicate the same. The 2014 GEM certifies these opinions with hard data.

H₂: Under equal conditions, irrespectively of the phase of the business cycle, women are less disposed to be self-employed than men.

There is no prevailing theory regarding age. A wealth of literature on the entrepreneurship of youth offers no determining results (Blanchflower & Meyer, 1994. Bird (1993) shows that an entrepreneur's age is less weighty a factor than others. Ronstadt (1985) indicates that it is more difficult to start a business if one is under the age of 22 and over the age of 55. On one hand, youth goes hand in hand with impetus, and it seems that allocentrics prevail more among youth (Rubio, 2014; Callejón, 2003). But on the other hand, youth has less education and training and experience. This, as

Thomas (2009) indicates, has a heavy bearing on carrying out initiatives. We therefore consider that,

H₃: Middle age is the best for self-employment.

In all likelihood, education and training will stimulate entrepreneurship because it helps one perceive opportunities. Generally speaking, a good portion of the literature is inclined to consider that the higher one's level of education, the greater one's disposition towards self-employment and entrepreneurship (Hernández and Serrano, 2008; Congregado and Millán, 2008). Nevertheless, more education and training would tend to go hand and hand with better employment and better salaries and working conditions that could diminish one's desire to seek new opportunities and undertake a business initiative. Thomas (2009) indicates that university students undertake business initiatives less because they are expecting better opportunities in other jobs. Meanwhile, Toledano and Urbano (2008) indicate that what is important is to teach not so much certain specific knowledge but instead entrepreneurship enhancing skills. Without having a specific reference, we are inclined to sustain the hypothesis that:

H₄: The more education and training, the greater one's disposition to be self-employed

Education and training are related to employment. One of the main phenomena involving entrepreneurship is that one's job position affords a perspective of one's work and enables one to find opportunities. Thomas (2009) indicated that experience is crucial to entrepreneurship. Blanchflower and Meyer (1994) and Bird (1993) agree. We can also imagine that the best jobs afford the best working conditions and salaries. However, it has been observed that knowledge gained through one's job or in certain work-related economic and social environments has a great bearing on one's predisposition to be self-employed. Millan et al. (2014) consider the importance of formal education and prior work experience as possible criteria for participation in start-up incentive programs.

H₅: The better one's job position, the better disposed to be self-employed.

Good working conditions and salaries can reduce entrepreneurship. A life with a cushy salaried job can diminish one's quest for opportunities that expansive economic cycles offer. Nevertheless, experience affords more opportunities (Thomas, 2009). But the comfort of good working conditions cannot be equated with the need to seek one's living. Therefore

H₆: Good working conditions and salaries diminish entrepreneurship.

The same could be said for job satisfaction.

H₇: The greater one's job satisfaction, the lesser one's willingness to be self-employed.

Finally, out on the job market, in addition to working conditions and salaries, the atmosphere and relations at work have an impact. There are friendly and relatively unfriendly or even hostile environments. Unfriendly working environments would push individuals towards self-employment. However, difficult environments could be caused by an individual's attitude or nature. Callejón (2003) indicates that the more trouble one has in fitting in, socially or workwise, the more likely the person is to turn to self-employment. Román et al. (2013) discuss the effects of different measures of social capital and network contacts, such as family, social networks and so on, as factors that facilitate self-employment. Here, we refer only to the social and labour relations established within a workplace whose effects are different than the support one might find from family or friends to become self-employed.

H₈: The worse the social and work relations, the more likely self-employment is.

3. Data and Methodology

To verify these hypotheses, because they represented the expansive and then the recessive phases of the economic cycle, we used the Living Conditions at Work Survey (*Encuesta de Condiciones de Vida en el Trabajo* - ECVT) from 2006 and then from 2010. This survey was conducted by the Spanish Ministry of Labour and Immigration until 2010, the year of the last wave. Each one of the waves in the sample is cross-

cutting and encompasses more than 7000 individuals. When gender is used as a cut-off, there is still a high subsample, meaning the representative value is sufficient.

The logit model is used to explain the selection into self-employment. “Y” is the outcome describing whether an individual chooses to be a self-employee or salaried. The statistical technique applied is a binary regression with interactions, as per the following model:

$$\text{logit } P(Y=1|C_{\text{cycle}}, X_{\text{gender}}) = \beta_0 + \beta_1 I(C_{\text{cycle}} = \text{growth}) + \beta_2 I(X_{\text{gender}} = \text{male}) + \beta_3 X_{\text{sat}} + \beta_4 X_{\text{sat}} I(C_{\text{cycle}} = \text{growth}) + \beta_5 X_{\text{sat}} I(X_{\text{gender}} = \text{male})$$

The variable ‘ X_{cycle} ’ is a categorical variable that takes two values: ‘growth’ 1 and ‘crisis’, 0.

The variable ‘ X_{gender} ’ is a categorical variable that takes two values: ‘male’=1 y ‘female’= 0.

The variable ‘ X_{sat} ’ is a numerical variable that can express satisfaction as per a given aspect, or age, or a given job category.

The following four situations differ only in that the variables gender=male and cycle=growth may appear or not.

For crisis and female:

$$P(Y=1)/P(Y=0) = \exp(\beta_0) \exp(\beta_3 X_{\text{sat}})$$

For growth and female:

$$P(Y=1)/P(Y=0) = \exp(\beta_0 + \beta_1) = \exp(\beta_0) \exp(\beta_1) \exp((\beta_3 + \beta_4) X_{\text{sat}})$$

For crisis and male:

$$P(Y=1)/P(Y=0) = \exp(\beta_0 + \beta_2) = \exp(\beta_0) \exp(\beta_2) \exp((\beta_3 + \beta_5) X_{\text{sat}})$$

For growth and male

$$P(Y=1)/P(Y=0) = \exp(\beta_0 + \beta_1 + \beta_2) = \exp(\beta_0) \exp(\beta_1) \exp(\beta_2) \exp((\beta_3 + \beta_4 + \beta_5) X_{\text{sat}})$$

This initial approach (Annex 1) allowed us to observe three different things. First, the groups of salaried workers and self-employed workers are different. Secondly, the cycle

marked attitudes leaning more towards self-employment or salaried work. Thirdly, gender was also clearly a differentiating factor in this leaning.

The dependent variable stems from the question posed to the individual regarding a preference for being self-employed or salaried.

The independent variables, job-related issues and personal characteristics, refer to aspects related to the previously stated hypotheses to be compared. An explanation of the variables and their values can be found in el Annex I.

As we initially indicated, unlike Román et al. (2013) we did not include the person's financial situation, prior business experience, family background or economic and social environment.

4. Results

Annex I provides a table with descriptions of the characteristics of the explanatory variables. It also constitutes a summary of the results obtained when applying a test to check the equality of the measures. Interesting results are obtained about the differences in the two periods of the cycle and the differences by gender.

However, the main results are presented in two tables. The first, Table 1, is a binary logistic regression of the selected variables with the two interactions, i.e. cycle and gender, appearing successively. In a synopsis bringing together the significant variables regarding readiness to be self-employed as opposed to salaried, Table 2 shows a single regression with the variables that appeared significantly in the previous table. Complete model log-likelihood = 17.093.51, degree of freedom = 33. Simple model log-likelihood = 43.686.02; degree of freedom = 23, the log-likelihood test to contrast model with and without Cycle is significant at 0.01 level $\chi^2=25.593.51$.

Table 1: Logic regression

Logic: Self-employed=1	B	Standard Error	Wald	gl	Sig.	Exp(B)
Age	-,008	,004	4,969	1	,026	,992
Educational level	-,054	,022	5,798	1	,016	,948
Job Satisfaction	-,044	,027	2,623	1	,105	,957
Degree of satisfaction with the type of work performed	-,010	,026	,162	1	,687	,990
Degree of satisfaction with autonomy/independence	,106	,020	28,713	1	,000	1,112
Degree of working hour satisfaction	-,009	,017	,295	1	,587	,991
Degree of satisfaction with job stability	-,013	,015	,668	1	,414	,987
Net monthly income	-,101	,035	8,179	1	,004	,904
Job position (1: Top-level manager; 5: Unskilled worker)	-,132	,037	12,738	1	,000	,876
Hours per week devoted to main job	,215	,044	23,372	1	,000	1,240
Company labour and social relations (α Cronbach = 0.82)	-,064	,044	2,098	1	,147	,938
Gender	-,285	,420	,460	1	,497	,752
Cycle	1,154	,406	8,064	1	,005	3,171
I(Cycle)*Age	-,003	,004	,895	1	,344	,997
I(Cycle)*Educational level	-,037	,022	2,748	1	,097	,964
I(Cycle)*Job Satisfaction	,017	,028	,379	1	,538	1,018
I(Cycle)*Degree of satisfaction with the type of work performed	,000	,027	,000	1	,989	1,000
I(Cycle)*Degree of satisfaction with autonomy/independence	-,016	,021	,588	1	,443	,984
I(Cycle)*Degree of working hour satisfaction	-,074	,019	14,481	1	,000	,929
I(Cycle)*Degree of satisfaction with job stability	-,002	,017	,020	1	,888	,998
I(Cycle)*Net monthly income	,173	,042	17,259	1	,000	1,189
I(Cycle)*Job position	-,038	,039	,956	1	,328	,963
I(Cycle)*Hours per week devoted to main job	-,099	,050	3,861	1	,049	,906
I(Cycle)*Company labour and social relations (α Cronbach = 0.82)	,016	,046	,128	1	,721	1,016
I (Gender)* Cycle	,038	,091	,173	1	,678	1,039
I (Gender)* Age	,004	,004	1,023	1	,312	1,004
I (Gender)* Educational level	,031	,023	1,892	1	,169	1,032
I (Gender)* Job Satisfaction	,015	,028	,277	1	,599	1,015
I (Gender)* Degree of satisfaction with the type of work performed	,035	,027	1,622	1	,203	1,035
I (Gender)* Degree of satisfaction with autonomy/independence	-,005	,021	,066	1	,797	,995
I (Gender)* Degree of working hour satisfaction	,028	,020	2,045	1	,153	1,028
I (Gender)* Degree of satisfaction with job stability	-,058	,017	11,790	1	,001	,943
I (Gender)* Net monthly income	,084	,040	4,296	1	,038	1,087
I (Gender)* Job position	-,020	,039	,246	1	,620	,981
I (Gender)* Hours per week devoted to main job	,009	,051	,033	1	,855	1,009
I (Gender)* Company labour and social relations (α Cronbach = 0.82)	-,031	,046	,458	1	,498	,969
Constant	-,715	,388	3,400	1	,065	,489

The reference values for results in table 1 are: Self-employed 1, Salaried workers 0; Female 0, Male 1; Crisis 0 and Growth 1.

We incorporated 13 variables including those that interact, i.e. gender and economic cycle. Seven variables appear significant.

Interacting variables: *Gender* does not appear significant in this first regression. *Business cycle* does appear significant with $\exp(\beta) = 3.171$. This means that the cycle has a strong impact on the decision to become self-employed. Growth phases of the cycle increase predisposition towards threefold as compared to the crisis phase.

1. Variables in the first part of the regression: major Wald statistics on the crisis and on women, working hours, job position, and satisfaction with one's autonomy and income. That is to say,
 - ✓ The more hours worked, the greater the willingness to be self-employed
 - ✓ The higher the income, the less willingness to be self-employed.
 - ✓ The higher the age, the more education and training and the lower the job position, the less willingness to be self-employed.
2. When we interact with the Cycle (growth=1), the sign of the variables changes and in Growth cycles, higher income becomes a positive variable (if we add β to the former it becomes positive 0.072). Although the value of hours as an explanatory variable diminishes, it still has a high positive β . Working hour satisfaction also becomes significant in this interaction.
3. The interaction with Gender shows only two significant variables, of which only monthly income appears significant in the interaction. The interpretation is that, in principle, high income predisposes males to be self-employed. However, if we add β , there is still a negative value. The other significant variable is satisfaction with stability, yet its coefficient remains virtually unaltered.

The joint interactions with the cycle and gender do not show any changes and are therefore not included.

Table 2: Regressions with Interactions, Cycle and Gender.

Logic: Self-employed=1	B	Standard Error	Wald	gl	Sig.	Exp(B)
Age	-,006	,002	12,307	1	,000	,994
Educational level	-,041	,015	7,086	1	,008	,960
Hours per week devoted to main job	,216	,035	38,208	1	,000	1,242
Cycle	,646	,205	9,897	1	,002	1,908
Job position	-,183	,019	91,056	1	,000	,833
Net monthly income	-,138	,031	20,331	1	,000	,871
I(Cycle)* Hours per week devoted to main job	-,087	,049	3,104	1	,078	,917
I(Cycle)*Net monthly income	,179	,037	23,056	1	,000	1,196
I(Cycle)*Educational level	-,029	,019	2,395	1	,122	,971
I(Cycle)*Degree of working hour satisfaction	-,056	,012	21,713	1	,000	,946
I (Gender)* Net monthly income	,139	,031	19,699	1	,000	1,149
Gender	,383	,113	11,496	1	,001	1,467
I (Gender)* Degree of satisfaction with job stability	-,053	,010	29,386	1	,000	,948
Constant	-,358	,201	3,182	1	,074	,699

Table 2, drawn up with the significant variables from the first regression and their interactions, and with high Wald statistics highlights job position, working hour and income related variables and their interactions. Insofar as the $\exp(\beta)$, those that are noteworthy correspond to cycle and gender interactions and those related to working hours and income. Both the cycle and gender variables indicate two different labour variables, that is, in the expansive cycle, dissatisfaction with working hours predisposes people to become self-employed, and regarding gender, greater job instability prompts males.

5. Interpretation of the results.

We have interpreted the results based on the hypotheses established.

1. Self-employment does indeed occur much more frequently during expansive phases than during crises. The $\exp(\beta)$ for the expansive phase of the cycle is patent in both table 1 and table 2. The so-called *pull* theories that highlight opportunities as drivers for self-employment are more significant than the *push* theories leading people in that direction. The research supports this because we have used a set of labour variables that could increase one's desire to be self-employed during a crisis, i.e. diminished stability or job satisfaction, or a worsened work situation. *Pull theories'* greater impact has significant a bearing on policies applied by countries to stimulate self-employment as a measure to tackle unemployment and alleviate crises. First, these measures may lack effectiveness because individuals are less inclined to become self-employed during crises than during expansive phases. Secondly, the policies may encourage those who are actually less prepared and have less of an incentive to seek opportunities who are not those pressed by need (Varheul et al. 2006). This could lead to their personal and social failure and a worsening of the situation. Thirdly, this may lead to wasted resources because diminished business opportunities could increase failure.
2. Gender differences remain large in this sphere. As compared to elsewhere in the workforce, women lag behind among the self-employed. It can be observed that

while women are somewhat younger and better prepared, their job status is lower than males'. Merely two minor changes in self-employment status can be gleaned from the first table. Yet in table 2, a summary of significant variables, gender does appear to be significant and explanatory. Males show greater willingness to be self-employed ($\exp(\beta) = 1.46$). This backs up our initial and merely descriptive approach to the issue.

3. Insofar as age is concerned, youth seems to be the period in which dreams and initiatives burgeon. While the average age of the two groups, salaried workers and the self-employed, is similar, the regressions indicate less willingness among those who are older. Although this can be understood easily enough, at the same time, we cannot overlook the fact that accumulated experience is what can allow undiscovered business opportunities to be identified in the most Kirznerian sense of entrepreneurship. In other words, our hypothesis that those who are middle aged and have both job and social experience and motivation at the same time are more inclined towards entrepreneurship would be confirmed. As in the previous point, these results call into question generic incentives for youth self-employment as a way of solving unemployment, which in turn calls for rethinking active employment policies and seeking to increase success and diminish failure rates.
4. The results regarding education indicate that it does not correlate very positively with self-employment. Toledano and Urbano (2008) have indicated that self-employment or entrepreneurship projects require a type of knowledge that is not acquired in formal education, and this notion can be directly related to job position in that those with the best jobs are those most favourably inclined towards entrepreneurship. A good job may stand as a better watchtower for observing opportunities than a more solid education. It should be highlighted that the Wald statistic value for job position in Table 2 is most representative variable. Another observation regarding education could be added, and that is that those whose level of education is the highest may perceive certain problems in entrepreneurship that those with lower levels of education might not see.
5. Working conditions such as working hours, stability and job satisfaction do not allow conclusive results to be drawn regarding motivation to become self-employed during different phases of the economic cycle. Our hypothesis was that the better the working conditions, the less inclination to become self-

employed, and this is backed by the push theory thesis. The only appreciable factor in this category is working hours during the expansive part of the cycle.

6. Our hypothesis regarding the working and social environment was that poor environmental conditions could push individuals to change jobs or, in this case, become self-employed. A wealth of literature (Reference Author 2015) points to the importance of good labour and social relations within a company as a factor for job satisfaction. Here, Callejón (2003: 19) sustained there was a difference between self-employed and salaried workers in this regard, yet the results do not show any impact on the willingness to be self-employed.
7. Table 2 provides a summary of the set of significant variables and their coefficients. We have already commented on the significance of the job position variable and the major significance of the interacting variables, i.e. cycle and gender. Here we would like to stress the impact that income and working hours also have. Our interpretation of these two variables is that a greater workload (hours) and greater potential benefits (in the form of higher income) coupled with certain personal traits (better job position and higher education) account for an individual's greater willingness to be self-employed. These possibilities are observed as opportunities as opposed to havens. In other words, they back up our basic hypothesis.

6. Summary, conclusions, policy proposals and furthering of this research

This research has attempted to ascertain willingness to be self-employed versus salaried based on an analysis of some personal characteristics and certain labour aspects that afford a certain degree of well-being in the company. Using these variables, we attempted to evaluate theories of opportunity versus need. We did not draw a distinction between self-employed workers and entrepreneurs because the type of business pursuit involved fell outside the scope of our research.

We believe our research is of interest because it includes variables related to employment and labour relations that are not usually found in the wealth of literature on the topic.

Among our results we first highlight the fact that willingness to be self-employed during an economic crisis is much lower than during expansive phases of the economy, which leads us to believe that the phase of the economic cycle should be taken into account when considering this job promotion model and incentives for entrepreneurship.

Policies fostering self-employment should vary according to whether jobs are being created or destroyed at the time.

Secondly, other significant food for thought arose regarding not only individuals and public policy for but also the policies of private entrepreneurship stimulating agencies. For instance, education is important, but as we have indicated, and without broaching the subject of whether or not entrepreneurs are born as such or shaped, there are a series of areas that are learnt better when one has previously had hands on experience. For instance, our results show that job position has a greater impact than education and training on one's willingness to be self-employed. This is to say that those who would prefer to be self-employed have higher job positions but somewhat less education and training than those who prefer to be salaried workers. The results on age also point to the special caution that youth should exercise. According to both our own hypothesis and a diversity of literature, middle age is when people are most inclined to begin ventures. We also noted that good working conditions is a significant variable both during crisis and expansive phases of the economy, and we therefore do not consider them to be determining factors for people's willingness to be self-employed. Furthermore, a complex social and labour environment leads to greater willingness to be self-employed, although the roots of this complexity are not clear. Significant differences regarding gender emerged in the research. We believe they have diminished, although they are still present. We particularly highlight income and working hours as variables impacting willingness for ventures.

Insofar as policy recommendations, be they individual, run by promotion entities or public agencies, what should be taken into account is that the quality of those pursuing self-employment will in all likelihood be higher during expansive economic cycles when there is more motivation and an easier economic environment. Counselling and encouraging individuals to become self-employed during economic recessions should be exercised with a great deal of caution.

Given the value that job position had in our results, support should be geared towards helping individuals to network and build on their previous experience. While this is probably what entrepreneurs already do, when it comes to inexperienced youth, business incubators or spin-offs seem more appropriate than financial aid in the form of tax incentives, lower social benefit payments, or low interest loans. In other words, although the literature shows that financial incentives are significant in sparking self-employment, during recessions, when individuals turn to self-employment out of need,

we are unsure as to their advisability. While financial aid tends to increase the number of initiatives, issues involving both the future and project quality take a backstage. We would prefer introduction policies geared more to technical and professional training. In any event, this support would not necessarily need to replace but rather could come hand and hand with financial aid. The issue in our view would be to step up the former without overlooking the latter.

This research examined willingness but not actual fact. It is not the same to intend to be self-employed as it is to actually take that decision. We believe that moving from words to action, to actually starting a venture, is important. Following up on projects started in both phases of the economic cycle with individuals whose characteristics reflect various permutations of the variables used in this study could help to clearly demarcate and more accurately guide public policy and the work of institutions to help and encourage self-employment. Certain government data such as the social security agency data on individuals who go from being salaried workers to self-employed should be able to provide highly illustrative information on the issues analysed in this research.

References:

- Acs, Z.J.; Audretsch, DB; Braunerhjelm, P.; Carlsson, B. (2012) Growth and entrepreneurship, *Small Business Economics* 39 (2), 289-300
- Alonso, M.A. & Galve, C. (2008) Dinamismo empresarial y autoempleo. Una comparativa a nivel europeo. *Proyecto social: Revista de relaciones laborales*. 12 (12) 17-40.
- Alvarez, C.; Noguera, D. & Urbano, D. (2012) Condicionantes del entorno y emprendimiento femenino: un estudio cuantitativo en España. *Economía industrial*, Nº 383, págs. 43-52
- Andersson, P. & Wadensjö, E. (2007). Do the unemployed become successful entrepreneurs? *International Journal of Manpower*, 28(7), 604–626.
- Astebro, T. (2003). The return to independent invention: Evidence of unrealistic optimism, risk seeking or skewness loving? *The Economic Journal*, 113(484), 226–239.
- Audretsch, D.B. & Thurik, A.R. (1997) Sources of growth: the entrepreneurial versus the managed economy, Centre for Economic Policy Research
- Audretsch, DB & Lehmann, EE (2005) Do University policies make a difference?, *Research Policy* 34 (3), 343-347
- Baptista R., Thurik, R., Van Stel, A.J.(2006) The relationship between entrepreneurship and unemployment in Portugal. *Technological Forecasting & Social Change* 74, 75–89.
- Barrado, B. and Molina, J. A. (2015) Factores macroeconómicos que estimulan el emprendimiento. Un análisis para los países desarrollados y no desarrollados. Documentos de Trabajo DT2015-06, Facultad de Ciencias Económicas y Empresariales, Universidad de Zaragoza.
- Behking, F. & Harvey, M. (2015) The evolution of false self-employment in the British construction industry: a neo-Polanyian account of labour market formation *Work, Employment & Society March 10, 2015 0*
- Bird, B.J. (1993) Demographic approaches to Entrepreneurship: The Role of Experience and Background. En Katz, J.A. y Brockhaus, R.H. Eds. *Advances in Entrepreneurship and Growth*, vol.1 (11-43). Greenwich, Jai Press.
- Blanchflower, D. & Meyer, B. (1994). A Longitudinal Analysis of Young Self-employed in Australia and the United States. *Small Business Economics*, 6 (1), 1-20.
- Bögenhold, D. & Udo Staber, U. (1991): The Decline and Rise of Self-Employment, *Work, Employment and Society*, Vol. 5, No. 2, 1991, pp. 223 – 239.
- Callejón, M. (2003): "Procesos de selección, iniciativa empresarial y eficiencia dinámica". *Working Paper*. Universidad de Barcelona. Barcelona.
- Campaña, JC, Giménez-Nadal, J.I., & Molina, J.A. (2016). Differences between self-employees and wage-earners in time uses: Aragon vs. Spain. MPRA Paper No. 71463.
- Campaña, JC, Giménez-Nadal, J.I., & Molina, J.A. (2017). Differences between self-employed and employed mothers in balancing family and work responsibilities: evidence from Latin American countries. MPRA Paper No. 77964.

- Campaña, JC, Giménez-Nadal, J.I., & Molina, J.A. (2017). Self-employment and educational child care time: evidence from Latin America. MPRA Paper No. 77360.
- Carrasco, R. (1999). Transitions to and from self-employment in Spain: An empirical analysis. *Oxford Bulletin of Economics and Statistics*, 61(3), 315–341
- Carree, M., Van Stel, A.J., Thurik, R., and Wennekers, S. (2002) Economic Development and Business Ownership: An Analysis Using Data of 23 OECD Countries in the Period 1976-1996. *Small Business Economics*, 19 (3), 271-290
- Comision Europea (2003). *Libro verde - El espíritu empresarial en Europa*. COM/2003/0027 final, Bruselas, 21.1.2003.
- Congregado, E. & Millán, J.M. (2008). "Capital humano y transiciones al autoempleo" (102-128). *El capital humano y los emprendedores en España*. Instituto Valenciano de Investigaciones Económicas, IVIE. Valencia.
- Congregado, E., Golpe, A. A., & Carmona, M. (2010). Is it a good policy to promote self-employment for Job creation? Evidence from Spain. *Journal of Policy Modeling*, 32(6), 828–842.
- Corral, A. & Villarejo, E. (2009) "Spain: Self-employed workers", en *Self-employed workers: industrial relations and working conditions*, publicación electrónica de Eurofound.
- Cuadrado, JR., Iglesias, C. & Llorente, R (2005) El empleo autónomo en España: factores determinantes de su reciente evolución CIRIEC-España, *Revista de Economía Pública, Social y Cooperativa*, nº 52, pp. 175-200
- Ejermo, O. & Xiao, J. (2014) Entrepreneurship and survival over the business cycle: how do new technology-based firms differ? *Small Bus Econ* (2014) 43:411–426.
- Evans, D. S. & Leighton, L. (1990) Small Business Formation by Unemployed and Employed Workers, *Small Business Economics* 2 (4), 319-330.
- Fritsch, M.;Kritikos, A. & Pijnenburg, K. (2015) Business cycles, unemployment and entrepreneurial entry — evidence from Germany, *Int. Entrep. Manag. J.* (2015) 11:267–286. DOI 10.1007/s11365-014-0326-3
- Fuentes, F.J. & Sánchez, S.M. (2010). Análisis del perfil emprendedor: una perspectiva de género. *Estudios de Economía Aplicada*, 28(3), 1-28.
- García, I. & Molina, J.A. (1998). Household labour supply with rationing in Spain. *Applied Economics*, 30, 1557-1570.
- García, I. & Molina, J.A. (2002). Inter-regional wage differentials in Spain. *Applied Economics Letters*, 9, 209-215.
- García, I., Molina, J.A. & Montuenga, V. (2010). Intra-family distribution of paid-work time. *Applied Economics*, 42, 589-601.
- Giménez, J.I. and Molina, J.A. (2014). Regional unemployment, gender and time allocation of the unemployed. *Review of Economics of the Household*, 12 (1), 105-127.
- Gimenez-Nadal, J. I., & Ortega-Lapiedra, R. (2010). Self-employment and time stress: The effect of leisure quality. *Applied Economics Letters*, 17(17), 1735-1738.
- GOBAL ENTREPRENEURSHIP MONITOR (2014). *Informe GEM España*.
- Hayek, F von (1948). *Individualism and Economic Order*, The University of Chicago Press, reimpresión de 1980.
- Hernández, L. & Serrano, L. (2008) "Características de los emprendedores en España". (pp 19-42) *El capital humano y los emprendedores en España*. Instituto Valenciano de Investigaciones Económicas, IVIE. Valencia.
- Kirzner, I. (1997) Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach, *Journal of Economic Literature*, 35 (2): 60-85.

- Klapper, L; Inessa Love; Douglas Randall (2015) New firm registration and the business cycle, *Int Entrep Manag J*, 11:287–306
- Knight, FH (1921) *Risk, Uncertainty and Profit*. en Puterman, L. (1994) La naturaleza economica de la empresa. Alianza Editorial, Madrid.
- Levesque, M. & Minniti, M. (2006) The effect of aging on entrepreneurial behavior. *Journal of Business Venturing*, 21(2), 177-194
- Medina, A. (2012) *Hoja de Ruta para emprendedores. Crear una empresa en tiempos difíciles. Una ayuda para empezar a caminar. Por qué hacerlo, cuándo hacerlo y cómo hacerlo*. Ediciones Pirámide.
- Medrano, M^a L. (Coord) (2012) Perfil y motivación de la juventud emprendedora española. Juventud y emprendimiento. Una oportunidad en tiempos de crisis. *Revista de Estudios de la juventud*, nº99.
- Menger, C. (1870) *The Principles of Economics*, Ediciones Folio, 1996. Union Editorial. Barcelona.
- Millán, J. M., Congregado, E., & Román, C. (2014). Persistence in entrepreneurship and its implications for the European entrepreneurial promotion policy. *Journal of Policy Modeling*, 36(1), 83–106.
- Molina, J.A. & Montuenga, V. (2009). The motherhood wage penalty in Spain. *Journal of Family and Economic Issues*, 30, 237-251.
- Molina, J. A., Velilla, J., & Ortega, R. (2016). The decision to become an entrepreneur in Spain: The role of the household finances. *International Journal of Entrepreneurship*, 20(1), 57-73.
- Molina, J. A., Velilla, J., & Ortega, R. (2016). Entrepreneurial activity in the OECD: pooled and cross-country evidence. MPRA Paper No. 71592.
- Molina, J. A., Velilla, J., & Ortega, R. (2016). Feminization of entrepreneurship in developing countries. MPRA Paper No. 76981.
- Molina, J. A., Velilla, J., & Ortega, R. (2018). Why older workers become entrepreneurs? International evidence using gussy set methods. *The Journal of the Economics of Ageing*, 12, 88-95.
- North, D. C. (1984) *Estructura y cambio en la historia económica*, Alianza Universidad, Madrid.
- North, D. C. (1993): *Instituciones, Cambio Institucional y Desempeño Económico*, México, Fondo de Cultura Económica.
- Plog, S.C. (1991): *Leisure travel: Making it a Growth Market...Again*. Wiley and Sons. New York. (Citado en Rubio Gil, 2012).
- Rampini, Adriano (2004) “Entrepreneurial Activity, Risk, and the Business Cycle,” *Journal of Monetary Economics* 51, 555–573.
- Ribeiro Soriano, D. & Galindo Martín, M.A. (2012) Government policies to support entrepreneurship, *Entrepreneurship & Regional Development*, Volume 24, Issue 9-10, p. 861-864, Doi:10.1080/08985626.2012.742322
- Román, C., Congregado, E., Millán, J.M. (2013) Start-up incentives: Entrepreneurship policy or active labour market programme? *Journal of Business Venturing* 28 (2013) 151–175
- Ronstandt, R. (1985) The educated entrepreneurs: A new era of entrepreneurial education is beginning. *American Journal of Small Business*, Spring, 37-53.
- Rubio Gil, Á. (2012) Juventud, Emprendimiento y Desarrollo: nuevos nichos de mercado y yacimientos de empleo. *Revista De Estudios De Juventud* , Nº 99
- Schumpeter, JA (1911) *Teoría del desenvolvimiento económico*, México, Fondo de Cultura Económica (1978).

- Thomas, M. (2009) The impact of education histories on the decision to become self-employed: a study of young, aspiring, minority business owners. *Small Business Economics*, 33(4), 455-466
- Thurik, A.R. (2014) Entrepreneurship and the business cycle. *IZA World of Labor* 2014: 90
- Thurik, A.R.; Carree, MA; Van Stel, A. and Audretsch, DB (2008) Does self-employment reduce unemployment?, *Journal of Business Venturing* 23 (2008) 673–686
- Toledano, N. & Urbano, D. (2008) Promoting entrepreneurial mindsets at universities: a case study in the South of Spain, *European Journal of International Management*, vol 2, n° 4, p 382-399.
- Varheul, I., Stel, A.J.V., Thurik, A.R., and Urbano, D. (2006). The relationship between business ownership and unemployment in Spain: a matter of quantity or quality? *Estudios de Economía Aplicada*, 24(2), 435-457.
- Wennekers, S. & Thurik, A.R. (1999) Linking entrepreneurship and economic growth, *Small Business Economics* 13 (1), 27-56.

Annex I:	2006, male				2006, female				2010, male				2010, female			
	Levene Test				Levene Test				Levene Test			Levene Test				
	F	Sig.	N	Mean	F	Sig.	N	Mean	F	Sig.	N	Mean	F	Sig.	N	Mean
Age (from 18 to 70)	0,275	0,6	2580	42,98	0,164	0,685	2347	41,37	0,666	0,415	3049	43,3			2753	42,69
			1755	42,92			894	40,97			1444	43,2			777	41,92
Educational level (1: illiterate; 10: Phd)	1,555	0,212	2580	5,34	0,015	0,904	2347	6,05	0,001	0,979	3049	5,5	3,451	0,063	2753	6,05
			1755	5,32			894	5,98			1444	5,7			777	5,88
Job Satisfaction (from 1 to 10)	5,823	0,016	2580	7,36	5,212	0,022	2347	7,32	2,665	0,103	3049	7,3	4	0,046	2753	7,44
			1755	7,34			894	7,21			1444	7,3			777	7,40
Degree of satisfaction with the type of work performed (from 1 to 10)	0,561	0,454	2580	7,65	8,853	0,003	2347	7,60	0,062	0,804	3049	7,7	4,913	0,027	2753	7,79
			1755	7,63			894	7,59			1444	7,8			777	7,79
Degree of satisfaction with autonomy/independence (from 1 to 10)	7,588	0,006	2580	7,21	5,88	0,015	2347	7,11	0,039	0,843	3049	7,5	1,686	0,194	2753	7,44
			1755	7,48			894	7,46			1444	7,9			777	7,68
Hours per week devoted to main job	71,123	0	2580	42,13	2,069	0,15	2347	36,22	94,338	0	3049	41,5	4,436	0,035	2753	36,02
			1755	44,52			894	38,28			1444	43,5			777	38,73
Degree of working hour satisfaction (from 1 to 10)	23,933	0	2580	6,92	8,508	0,004	2347	7,19	0,487	0,485	3049	7,1	2,057	0,152	2753	7,27
			1755	6,53			894	6,76			1444	7,0			777	7,09
Degree of satisfaction with job stability (from 1 to 10)	3,796	0,051	2580	7,49	0,717	0,397	2347	7,37	1,464	0,226	3049	7,3	0	0,998	2753	7,32
			1755	7,18			894	7,21			1444	7,0			777	7,18
Net monthly income (10 levels, from 1 to 10)	32,293	0	2580	2,67	25,558	0	2347	2,18	17,392	0	3049	3,8	0,08	0,777	2753	3,01
			1755	2,83			894	2,26			1444	3,9			777	2,96
Job position (1: Top-level manager; 5: Unskilled worker)	140,99	0	2571	3,55	49,449	0	2346	3,58	69,113	0	3037	3,6	26,482	0	2753	3,62
			1749	3,27			894	3,38			1437	3,4			776	3,51
Company labour and social relations (α Cronbach = 0.82) (4 questions regarding top-level managers, co-workers, trust in company leadership and appraisal)	10,528	0,001	2580	-0,05	0,055	0,815	2347	-0,06	31,541	0	3049	0,1	12,002	0,001	2753	0,06
			1755	-0,08			894	-0,08			1444	0,0			777	0,00
Salaried %			59.5				72.4				67.9				78	
Self-employed %			40.5				27.6				32.1				22	

